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INTERNATIONAL SEARCH REPORT PCT/US2005/009583 A CLASSIFICATION OF SUBJECT MATTER
1PC 7 C07K16/28 A61K39/395 A61P35/00 A61P17/06 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 C07K A61K Documentation searched other than minimum documentation to the extent that such documents are included. In the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, BIOSIS, EMBASE, WPI Data, PAJ, Sequence Search C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X WO 99/60023 A (IMCLONE SYSTEMS 1-41 INCORPORATED; UAB RESEARCH FOUNDATION) 25 November 1999 (1999-11-25) page 13, line 30 - page 15, line 19 page 19, line 21 - page 20, line 10 X WO 00/69459 A (IMCLONE SYSTEMS 1 - 41INCORPORATED) 23 November 2000 (2000-11-23) the whole document X WO 02/070008 A (IMCLONE SYSTEMS 31,32,35 INCORPORATED; ROCKWELL, PATRICIA: GOLDSTEIN, NEIL, I) 12 September 2002 (2002-09-12) the whole document -/--Further documents are listed in the continuation of box C. X Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance Invention "E" earlier document but published on or after the international filling date "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-ments, such combination being obvious to a person skilled in the combination being obvious to a person skilled "O" document referring to an oral disclosure, use, exhibition or document published prior to the international filing date but later than the priority date claimed *&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report

19/08/2005

Irion, A

Authorized officer

Form PCT/ISA/210 (second sheet) (January 2004)

Name and mailing address of the ISA

10 August 2005

European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (431-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3018

rter....al Application No PCT/US2005/009583

T2-November-1998-(1998-11-12) page 23, line 24 - line 28; claims 15,40; sequence 33 X WO 2004/005890 A (THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA; SIEGEL, DONALD, L) 15 January 2004 (2004-01-15) page 21, line 17 - line 18; figure 29p; sequence 69 X WO 03/064606 A (MEDAREX, INC; DEO, YASHWANT, M; GRAZIANO, ROBERT; HUDSON, DEBRA; HOLME) 7 August 2003 (2003-08-07) claims 2,3; sequences 37,39,40,42,43 X WO 02/11677 A (IMCLONE SYSTEMS INCORPORATED; TEUFEL, THOMAS) 14 February 2002 (2002-02-14) the whole document A HEITNER TARA ET AL: "Selection of cell binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL.	C / C **	ettes) pociumnum coulours	PC1/US2005/009583
LU D ET AL: "Simultaneous blockade of both the epidermal growth factor receptor and the insulin-like growth factor receptor signaling pathways in cancer cells with a fully human recombinant bispecific antibody" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 279, no. 4, 23 January 2004 (2004-01-23), pages 2856-2865, WP002316541 ISSN: 0021-9258 the whole document X WO 98/50433 A (ABGENIX, INC) 1,8-14, 17:18, 21-37 page 23, line 24 - line 28; claims 15,40; sequence 33 X WO 2004/005890 A (THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA; SIEGEL, DONALD, L) 15 January 2004 (2004-01-15) page 21, line 17 - line 18; figure 29p; sequence 69 X WO 03/064606 A (MEDAREX, INC; DEO, YASHWANT, M; GRAZIANO, ROBERT; HUDSON, DEBRA; HOLME) 7 August 2003 (2003-08-07) claims 2,3; sequences 37,39,40,42,43 X WO 02/11677 A (IMCLONE SYSTEMS INCORPORATED; TEUFEL, THOMAS) 14 February 2002 (2002-02-14) the whole document A HEITNER TARA ET AL: "Selection of cell binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V.,AMSTERDAM, NL.			
both the epidermal growth factor receptor and the insulin-like growth factor receptor and the insulin-like growth factor receptor signaling pathways in cancer cells with a fully human recombinant bispecific antibody" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, voi. 279, no. 4, 23 January 2004 (2004-01-23), pages 2856-2865, XP002316541 ISSN: 0021-9258 the whole document X W0 98/50433 A (ABGENIX, INC) -12-November-1998-(1998-11-12) -17:18, page 23, line 24 - line 28; claims 15,40; sequence 33 X W0 2004/005890 A (THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA; SIEGEL, DONALD, L) 15 January 2004 (2004-01-15) page 21, line 17 - line 18; figure 29p; sequence 69 X W0 03/064606 A (MEDAREX, INC; DEO, YASHWANT, M; GRAZIANO, ROBERT; HUDSON, DEBRA; HOLME) 7 August 2003 (2003-08-07) claims 2,3; sequences 37,39,40,42,43 X W0 02/11677 A (IMCLONE SYSTEMS INCORPORATED; TEUFEL, THOMAS) 14 February 2002 (2002-02-14) the whole document A HEITNER TARA ET AL: "Selection of cell binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V. AMSTERDAM, NL.	Category	Chaush of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
T2-November-1998-(1998-11-12) page 23, line 24 - line 28; claims 15,40; sequence 33 X WO 2004/005890 A (THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA; SIEGEL, DONALD, L) 15 January 2004 (2004-01-15) page 21, line 17 - line 18; figure 29p; sequence 69 X WO 03/064606 A (MEDAREX, INC; DEO, YASHWANT, M; GRAZIANO, ROBERT; HUDSON, DEBRA; HOLME) 7 August 2003 (2003-08-07) claims 2,3; sequences 37,39,40,42,43 X WO 02/11677 A (IMCLONE SYSTEMS INCORPORATED; TEUFEL, THOMAS) 14 February 2002 (2002-02-14) the whole document A HEITNER TARA ET AL: "Selection of cell binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL.	X	both the epidermal growth factor receptor and the insulin-like growth factor receptor signaling pathways in cancer cells with a fully human recombinant bispecific antibody" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 279, no. 4, 23 January 2004 (2004-01-23), pages 2856-2865, XP002316541 ISSN: 0021-9258	36
page 23, line 24 - line 28; claims 15,40; sequence 33 WO 2004/005890 A (THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA; SIEGEL, DONALD, L) 15 January 2004 (2004-01-15) page 21, line 17 - line 18; figure 29p; sequence 69 X WO 03/064606 A (MEDAREX, INC; DEO, YASHWANT, M; GRAZIANO, ROBERT; HUDSON, DEBRA; HOLME) 7 August 2003 (2003-08-07) claims 2,3; sequences 37,39,40,42,43 X WO 02/11677 A (IMCLONE SYSTEMS INCORPORATED; TEUFEL, THOMAS) 14 February 2002 (2002-02-14) the whole document A HEITNER TARA ET AL: "Selection of cell binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL.	X	WO 98/50433 A (ABGENIX, INC) 12-November-1998-(1998-11-12)	17,18,
UNIVERSITY OF PENNSYLVANIA; SIEGEL, DONALD, L) 15 January 2004 (2004-01-15) page 21, line 17 - line 18; figure 29p; sequence 69 X WO 03/064606 A (MEDAREX, INC; DEO, YASHWANT, M; GRAZIANO, ROBERT; HUDSON, DEBRA; HOLME) 7 August 2003 (2003-08-07) claims 2,3; sequences 37,39,40,42,43 X WO 02/11677 A (IMCLONE SYSTEMS INCORPORATED; TEUFEL, THOMAS) 14 February 2002 (2002-02-14) the whole document A HEITNER TARA ET AL: "Selection of cell binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL.		page 23, line 24 - line 28; claims 15,40; sequence 33	21-37
YASHWANT, M; GRAZIANO, ROBERT; HUDSON, DEBRA; HOLME) 7 August 2003 (2003-08-07) claims 2,3; sequences 37,39,40,42,43 X WO 02/11677 A (IMCLONE SYSTEMS INCORPORATED; TEUFEL, THOMAS) 14 February 2002 (2002-02-14) the whole document A HEITNER TARA ET AL: "Selection of cell binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL.	X	UNIVERSITY OF PENNSYLVANIA; SIEGEL, DONALD, L) 15 January 2004 (2004-01-15) page 21, line 17 - line 18; figure 29p;	1,11-14, 17,18
INCORPORATED; TEUFEL, THOMAS) 14 February 2002 (2002-02-14) the whole document A HEITNER TARA ET AL: "Selection of cell binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL.	X	YASHWANT, M; GRAZIANO, ROBERT; HUDSON, DEBRA; HOLME) 7 August 2003 (2003-08-07)	17,18,
binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL.	X	INCORPORATED; TEUFEL, THOMAS) 14 February 2002 (2002-02-14)	37-41
XP002252398 ISSN: 0022-1759 the whole document	A	binding and internalizing epidermal growth factor receptor antibodies from a phage display library" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL, vol. 248, no. 1-2, 2001, pages 17-30, XP002252398 ISSN: 0022-1759 the whole document	1-41

Application No
PCT/US2005/009583

C.(Continua	tion) DOCUMENTS CONSIDERED TO BE RELEVANT	PC1/US2005/009583
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
		THE WILL COUNTRY.
A	KREBS B ET AL: "High-throughput generation and engineering of recombinant human antibodies" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V., AMSTERDAM, NL, vol. 254, no. 1-2, 1 August 2001 (2001-08-01), pages 67-84, XP004245443 ISSN: 0022-1759 the whole document	1-41
	•	
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International application No. PCT/US2005/009583

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. X Claims Nos.: 21-41 because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 21-41 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely pald by the applicant, this International Search Report covers only those claims for which fees were pald, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest.
No protest accompanied the payment of additional search fees.

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Information on patent family members

Inte Application No
PCT/US2005/009583

				·		FC1/US	2005/009583
dt 	Patent document ed in search report		Publication date		Patent family member(s)		Publication date
W	0 9960023	Α	25-11-1999	AU	407999	9 A	06-12-1999
				BR	991051		20-11-2001
				CA	233233	ÎΔΊ	25-11-1999
				CN	131491		
				CZ			26-09-2001
				EP	20004224 1080113		13-02-2002
				JP			07-03-2001
					2002515511		28-05-2002
				PL	348634		03-06-2002
				SK	17282000		04-04-2002
				WO	9960023	Al	25-11-1999
				US	2004057950	AI	25-03-2004
				ZA	200007412	: A	12-03-2002
WO	0069459	Α	23-11-2000	AU	1607100	. ^	0E 10 0000
			73 11-7000	BG	4687100		05-12-2000
				BR	106110		30-04-2002
					0010524		28-05-2002
				CA CN	2373815		23-11-2000
					1361700	A , C	31-07-2002
				CZ	20014083		14-08-2002
				EE	200100603		17-02-2003
				EP	1218032		03-07-2002
	•			HU	0201480	AZ	28-08-2002
				JP	2003520195	Ţ	02-07-2003
				MX	PA01011632	A	07-11-2002
				NO	20015546		14-01-2002
				PL	365999		24-01-2005
				SK	16522001		08-10-2002
				WO	0069459		23-11-2000
				US	2005112120		26-05-2005
				US	2002012663		31-01-2002
				US	2003157104		21-08-2003
				ZA	200109347	A	13-02-2003
WO	02070008	Α	12-09-2002	US	2003103973	A1	05-06-2003
			_	BG	108214		30-09-2004
				BR	0207977		01-02-2005
				ČÄ	2439933		12-09-2002
				CZ	20032586		18-08-2004
				ĒΕ	200300428		15-10-2004
				ĒΡ	1379276		14-01-2004
				ĂÙ	0303378		29-12-2003
				JP	2005506288	T	03-03-2005
				NO	20033856	À	03-11-2003
				PL	364719	A1	13-12-2004
				WO	02070008	Aī	12-09-2002
				US	2003108545	A1	12-09-2002
				ŽĀ	200307682	A	13-01-2005
WO	9850433	Α	12-11-1998	US	6235883		22-05-2001
				ΑU	7287098	Α	27-11-1998
				CA	2288962		12-11-1998
				ΕP	0979246		16-02-2000
				JP	2001523973	Τ	27-11-2001
	•			US	2005100546	A1	12-05-2005
				WO	9850433	A2	12-11-1998
				US	2002173629	A1	21-11-2002
W٥	2004005890	Α	15-01-2004	AU	2003251791		23-01-2004

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PCT/US2005/009583

						
Patent document cited in search report		Publication date		Patent family member(s)	- · · · · · · - · · · · · · · · · · · ·	Publication date
WO 2004005890	Α		CA EP WO	2491471 1539236 2004005890	A2	15-01-2004 15-06-2005 15-01-2004
WO 03064606	Α	07-08-2003	CA EP JP WO	2474616 1519747 2005518789 03064606	A2 T	07-08-2003 06-04-2005 30-06-2005 07-08-2003
WO 0211677	Α	14-02-2002	AU CA EP JP NO WO	9500201 2418083 1311291 2004527456 20030603 0211677	A1 A2 T A	18-02-2002 14-02-2002 21-05-2003 09-09-2004 09-04-2003 14-02-2002

Form PCT/ISA/210 (patent family annex) (January 2004)